

SELF-ADJUSTING SCHMITT TRIGGER

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ABSTRACT

A Schmitt trigger includes a PMOS transistor and an NMOS transistor, each having a gate coupled to an output voltage terminal. The Schmitt trigger is configured such that an input voltage that switches on the PMOS transistor determines a low voltage threshold and an input voltage that switches on the NMOS transistor determines a high voltage threshold. By coupling devices such as diodes to either or both of the PMOS and NMOS transistors, a margin between the low voltage threshold and ground and between the high voltage threshold and a supply voltage are maintained as the supply voltage is reduced. In addition, hysteresis is maintained or increased as supply voltage is increased.

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